#### DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A21EA Revision No. 49 Bombardier Inc. CL-600-1A11 (600) CL-600-2A12 (601) CL-600-2B16 (601-3A Variant) CL-600-2B16 (601-3R Variant) CL-600-2B16 (604 Variant) CL-600-2B19 (Regional Jet Series 100 & 440)\* CL-600-2C10 (Regional Jet Series 700, 701 & 702)\* CL-600-2C11 (Regional Jet Series 550)\* CL-600-2D15 (Regional Jet Series 705)\* CL-600-2D24 (Regional Jet Series 900)\* CL-600-2E25 (Regional Jet Series 1000)\* \* Administratively transferred to TCDS A21EA-1 Revision No. IR on November 26, 2019 (See Note 17) November 26, 2019

# TYPE CERTIFICATE DATA SHEET NO. A21EA

This data sheet, which is part of Type Certificate No. A21EA prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Bombardier Inc.

Engines

800 boul. René Lévesque West Montreal, Quebec, Canada

Two AVCO Lycoming ALF-502L or ALF-502L-2

H3B1Y8

# <u>I - Model CL-600-1A11 (600) (Transport Category), Approved November 7, 1980, by the FAA and August 10, 1980, by the Canadian Department of Transport (DOT).</u>

Fuel	Туре			Specifications					
		Canada	U.S.A.	<u>U.K.</u>	China	Russia/Ukraine			
	Jet A	CAN2-3.23	ASTM D1655	-	-	-			
	Jet A-1	CAN2-3.23	ASTM D1655	DEF STAN	No. 3 Jet	TS-1* or RT			
				91-91					
	Grade JP-5	-	MIL-DTL-5624	DEF STAN	-	-			
				91-86					
	Grade JP-8	-	MIL-DTL-83133	DEF STAN	-	-			
				91-87					
	Jet B	CAN2-3.22	ASTM D6615 I	D. Eng. RD2486	-	-			
	JP-4	CAN2-3.22	MIL-DTL-5624 I	D. Eng. RD2454	-	-			
	T . A . 1 T . A	1 C 1			1 0 1:3	f 1'C'			

Jet A and Jet A-1 fuels must contain an approved anti-icing additive unless Canadair Modification Summary 600-702 and Lycoming Service Bulletin ALF-502-79-0007 are incorporated.

\*Refer to appropriate AFM listed in Approved Publication section when using TS-1.

Oil Engine, APU, Generator Adapter:

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or other approved oils as identified in the Maintenance

Manual (refer to Approved publications).

Engine Lin	nits									Static st (lb.)		ompre	ssor R	PM		Intertu Fempe				
												LP	]	HP						
											%	5N1	%	5N2	-	<u>°C</u>	°F		Time	Limit
			N	Лах. Т	akeoff				75	500	9	6.0	9	8.2	9	04	166	0	5 mi	inutes
Page No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Rev No.	49	43	43	43	43	43	42	43	43	49	49	49	49	47	47	47	47	42	49	49
Page No.																				
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	Max. Continuous Starting Maximum	7100	96.0	96.4	877 823	1610 1513	- 10 seconds above 793°C (1460°F)
Oil Temperature	Maximum Permissible Transient* *Permitted during power steady state operation.	reduction. Norm	al temperature	must be ac	° <u>C</u> 143 170 chieved with	<u>°F</u> 290 338 nin two minu	utes of achieving
Oil Pressure	Maximum Minimum		Sea Level At steady or high idl	state low	120 p.s.i. 30 p.s.i.		
APU Limits	Maximum RPM Maximum EGT: Starting (10 seconds) Running		110% <u>°C</u> 974 732	<u>°F</u> 1785 1349			
Airspeed Limits (CAS) (See NOTE 1)	$V_{mo}$ and $M_{mo}$ (maximum). Sea level to 10000 ft. above 10000 ft. $V_{fe}$ (Flaps extended). $V_{a}$ (maneuvering). (See AFM for variation.)	20° 30° 45°	m.p.h. 345 368 265 226 193	Knots 300 320 230 196 168 eight).	<u>Mach</u> - 0.79		
	V <sub>10</sub> (Landing Gear Ope V <sub>1e</sub> (Landing Gear Exte	ration)	225 288	196 250	-		
C.G. Range (See NOTE 1)	Weight, lb. 24000 to 3130 36500 25800 24000 Straight line variation be		Forward Lii <u>% MAC (St</u> 16% (+502.8 18% (+504.7	<u>ta.)</u> 348)		Aft L. <u>% MAC</u> 28% (+5 33% (+5 33% (+5	(Sta.) - 13.965) 18.598)
Datum	Fuselage station 0, locate	ed 375 inches forw	vard of weighin	ıg datum ji	g point		
Mean Aerodynamic Chord (MAC)	92.644 in. (Leading edge	e of MAC from da	tum at +488.02	25 in.)			
Leveling Means	Target plate and plumb l	oob bracket within	rear fuselage,	at fuselage	station 718	i.	
Maximum Weights (See NOTE 1)	Ramp Takeoff Landing Zero Fuel Minimum flight weight *Certain aircraft are elig		at an increased	weight. Se	ee AFM as i	n approved	publications.
Minimum Crew	Two (Pilot and Co-pilot)	)					
Maximum Occupants (See NOTE 1)	Twenty-one (includes cr	ew)					
Fuel Capacity		<u>U.S. C</u>	Gal. Imp. (	<u>Gal.</u>	<u>Kg.</u>	Weight, ll	o. Mom.Arm-in.

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	2 main tanks (each) 1 center tank Total	732.5 751 2216	611.3 625.8 1848.4	2259.1 2316.1 6834.3	4981 5107 15069	(+506.5) (+457.5)		
	Usable 2 main tanks (each) 1 center tank Total See NOTE 1(b) for system fuel.	725 750 2200	605 625 1835	2236 2313 6785	4930 5100 14960	(+506.5) (+457.5)		
Oil Capacity	2-engines (each) Total	<u>U.S. Gal.</u> 3.69 7.38	Imp. Gal. 3.07 6.14	<u>Kg.</u> 12.88 25.76	Weight, lb. 28.4 56.8	Mom.Arm-in. (+623) (+623)		
	Usable 2-engines (each) Total See NOTE 1(c) for system oil.	1.94 3.87	1.61 3.22	6.76 13.52	14.9 29.8	(+623) (+623)		
	APU Usable Total	.408 .714	.340 .594	1.43 2.49	3.144 5.5	(+675) (+675)		
	Unusable	.306	.254	1.06	2.356	(+675)		
Maximum Operating Altitude (See NOTE 1)	Takeoff and landing: En route:				dification Sumn	naries 600-1923		
Control Surface Movements	1	20° (+1.0°, -0.5°) Left 20° 23.6° (+ or - 1.0°) Up 18.4 0° (+0.5° or -0.25°) LE Up -9° (-20.8° (+ or - 1.0°) Up 21.3 - Inboard 0° - 4				0° (+1.0°, -0.5°) Right .4° (+ or - 1.0°) Down (+ or - 0.5°) LE Down .3° (+ or - 1.0°) Down 45° (+ or - 1.0°) Down 46.7° (+ or - 1.0°) Down		
Serial Numbers Eligible	1002, 1004 and subsequent							
Service Information	Service Bulletins, structural repair document is Transport Canada ap Approval Representative are acce- pertain to the type design only.	proved or Tran	sport Canada ap	proved throug	gh the Manufac	turers Design		

# II - Model CL-600-2A12 (601) (Transport Category), Approved March 11, 1983, by the FAA and February 25, 1983, by the Canadian Department of Transport (DOT).

Engines Two General Electric CF-34-1A or *
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Fuel	Type			Specifications				
		Canada	<u>U.S.A.</u>	<u>U.K.</u>	China	Russia/Ukraine		
	Jet A	CAN2-3.23	ASTM D1655	-	-	-		
	Jet A-1	CAN2-3.23	ASTM D1655	DEF STAN	No. 3 Jet	TS-1* or RT		
				91-91				
	Grade JP-5	-	MIL-DTL-5624	DEF STAN	-	-		
				91-86				
	Grade JP-8	-	MIL-DTL-83133	DEF STAN	-	-		
				91-87				
	Jet B	CAN2-3.22	ASTM D6615	D. Eng. RD2486	-	-		

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889

1632

50 seconds

JP-4 CAN2-3.22 MIL-DTL-5624 D. Eng. RD2454

\*Refer to appropriate AFM listed in Approved Publication section when using TS-1.

Oil

Engine, APU, Generator Adapter:

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or other approved oils as identified in the Maintenance Manual (refer to Approved Publications).

Engine Limits		SL Static Thrust (lb.)	Compre	essor RPM		urbine rature**	
			LP	HP			
			%N1	<u>% N2</u>	<u>°C</u>	<u>°F</u>	Time Limit
	Max. takeoff	9140	98.6	99.4	857	1575	5 minutes
	Normal takeoff	8650	96.2	98.3	842	1548	5 minutes
	Max. continuous	8920	98.6	99.2	838	1540	
	Idle range			62.9-64.0			
	Min. Idle in icing conditions			64.0			
	Transient:						
	Max. takeoff				886	1627	2 minutes
	Normal takeoff				864	1587	2 minutes
	Start/relight				930	1706	16 seconds

One - General Electric CF-34-3A and one CF-34-3A2 or

Aircraft with two CF34-3A or CF34-3A2 engines installed, improved performance is not available until Canadair Service Bulletin 601-0238 - Modification - Engines - Use of 3A engines at 3A power settings, is incorporated.

#### NOTE

<sup>2.</sup> Engine Limits with APR Operating are only applicable to Outside Air Temperatures of - 4°F (-20°C) and above.

Oil Temperature	Maximum Permissible (15 minutes Maximum for Single Engine Climb Maximum Continuous Minimum for Starting	,	naximum)		°C +163 +155 +150 -40	°F 325 311 302 -40
Oil Pressure	Maximum Transient Cold Start Maximum Continuous Minimum at Steady State Idle Minimum at Takeoff (power):	95 25	0 psi psi psi psi		(Six minutes	maximum)
APU Limits	Maximum RPM Maximum EGT: Starting (10 seconds) Running	:	110% °C 974 732	<u>°F</u> 1785 1350		
Airspeed Limits (CAS)	Te (	ng) <u>r</u> 20° 80°	m.p.h. 345 420 - 385 - 265 226	Knots 300 365 - 335 - 230 196	Mach 0.80 - 0.85 -	

One - General Electric CF-34-1A and one CF-34-3A or

One - General Electric CF-34-1A and one CF-34-3A2 or

Two - General Electric CF-34-3A or

Two - General Electric CF-34-3A2

<sup>\*\*</sup>See AFM as listed in Approved Publications for CF-34-3A and CF-34-3A2 engines ITT limits.

<sup>1.</sup> Above 40000 feet, engine anti-ice bleed or air conditioning unit must be selected ON for each engine.

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		45°	215	187	-		
	V <sub>a</sub> (maneuvering)			1.5			
	(See AFM for variation of V <sub>a</sub> with	th altitude and					
	V <sub>10</sub> (Landing Gear Operation)		226	196	-		
C.G. Range	V <sub>1e</sub> (Landing Gear Extended)	Е	288 Forward Limi	250	-	Aft Lir	nit
(See NOTE 1)	Weight, lb.		6 MAC (Sta.			% MAC (	
	25000 to 42250	_	5% (+502.848				
	42250 31000					30% (+51: 35% (+52)	/
	25000					35% (+52)	,
	Straight line variation between po	oints given.					
Datum	Fuselage station 0, located 375 in	nches forward	of weighing	datum jig <sub>l</sub>	oint.		
Mean Aerodynamic Chord (MAC)	92.644 in. (Leading edge of MAC	C from datum	at +488.025	in.)			
Leveling Means	Target plate and plumb bob brack	ket within rear	fuselage, at	fuselage st	ation 7	718.	
Maximum Weights	<u>lb. *</u>						
(See NOTE 1)	Ramp 42250						
	Takeoff 42100 Landing 36000						
	Zero Fuel 29500						
	Minimum flight weight 25000 *Certain aircraft are eligible for cubications.	operation at an	increased w	eight. See	AFM a	as in approved	
Minimum Crew	Two (Pilot and Co-pilot)						
Maximum Occupants (See NOTE 1)	Twenty-two (includes crew).						
Fuel Capacity		U.S. Gal.	Imp. Gal	K	g.	Weight, lb.	Mom.Arm-in.
Tuel Capacity	2 main tanks (each)	721	600.4		24	4903	(+506.6)
	Auxiliary Tanks	1012	842.7		21	6882	(+455.6)
	Total	2454	2043.4	75	69	16688	
	<u>Usable</u>						
	2 main tanks (each)	720 1011	600 842		21 18	4896 6875	(+506.6) (+455.6)
	Auxiliary Tanks Total	2451	2042		60	16667	(+433.0)
	See NOTE 1(b) for system fuel.						
Oil Capacity		U.S. Gal.	<u>Imp. Gal</u>	K	<u>g.</u>	Weight, lb.	Mom.Arm-in.
Оп Сарасну	2-engines (each)	1.70	1.42		<u>g.</u> 21	13.7	(+645.4)
	Total	3.40	2.83	12	.42	27.4	(+645.4)
	Usable						
	2-engines (each)	1.38	1.14	5.	04	11.11	(+645.4)
	Total	2.75	2.29	10	.08	22.22	(+645.4)
	See NOTE 1(c) for system oil.						
	APU						
	Usable Total	.408 .714	.340		43 49	3.144	(+646.0)
	างเลเ	./14	.594	2.	49	5.5	(+646.0)
	Unusable	.306	.254	1.	06	2.356	(+646.0)

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Altitude Operating	En route:		10000 ft. 41000 ft.	
Control Surface	Rudder		25° (+1.0°, -0.5°) Left	25° (+1.0°,5°) Right
Movements	Elevator		$23.6^{\circ} \text{ (+ or - 1.0^{\circ}) Up}$	18.4° (+ or - 1.0°) Down
	Horizontal Stabilizer		0° (+0.5° or -0.25°) LE Up	-9° (+ or - 0.5°) LE Down
	Aileron		20.8° (+ or - 1.0°) Up	$21.3^{\circ} (+ \text{ or } - 1.0^{\circ}) \text{ Down}$
	Flap	<ul><li>Inboard</li></ul>	_	$0^{\circ}$ - 45° (+ or - 1°) Down
	_	<ul><li>Outboard</li></ul>		$0^{\circ}$ - 46.7° (+ or - 1°) Down
	Flight Spoiler		0° - 40° (+3°, -0°) Up	

10000 ft

Serial Numbers Eligible 1003, 3001, and subsequent

Maximum Onanatina

Service Information Service Bulletins, structural

Toksoff and landings

Service Bulletins, structural repair manuals, and aircraft flight manuals which contain a statement that the document is Transport Canada approved or Transport Canada approved through the Manufacturers Design Approval Representative are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

# III - Model CL-600-2B16 (Transport Category), Approved April 30, 1987, by the FAA and April 21, 1987, by the Canadian Department of Transport (DOT).

Engines (601-3A Variant) Two General Electric CF-34-3A or CF-34-3A2 or One General Electric CF-34-3A and one CF-34-3A2

(601-3R Variant) Two General Electric CF-34-3A1 (Serial Number 5135 and subsequent) Approved by the FAA 15 July 1995.

(604 Variant) Two General Electric CF 34-3B (Serial Number 5301 and subsequent) Approved by the FAA 31 May 1995.

Fuel	Type	Specifications							
		Canada	<u>U.S.A.</u>	<u>U.K.</u>	<u>China</u>	Russia/Ukraine			
	Jet A	CAN2-3.23	ASTM D1655	-	-	-			
	Jet A-1	CAN2-3.23	ASTM D1655	DEF STAN	No. 3 Jet	TS-1* or RT			
				91-91					
	Grade JP-5	-	MIL-DTL-5624	DEF STAN	-	-			
				91-86					
	Grade JP-8	-	MIL-DTL-83133	DEF STAN	-	-			
				91-87					
	Jet B	CAN2-3.22	ASTM D6615	D. Eng. RD2486	-	-			
	JP-4	CAN2-3.22	MIL-DTL-5624	D. Eng. RD2454	-	-			
	*Refer to appropr	riate AFM listed	l in Approved Pub	lication section when	n using TS-1.				

Engine, APU, Generator Adapter:

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or other approved oils as identified in the Maintenance Manual (refer to Approved publications).

#### 601-3A & 3R Variants

Engine Limits

Oil

	SL Static Compressor RPM Thrust (lb.)		essor RPM	Intert Ten		
		LP	HP		•	
		%N1	<u>% N2</u>	<u>°C</u>	<u>°F</u>	Time Limit
Max. takeoff	9140	98.6	99.4	871	1600	5 minutes
Normal takeoff	8650	96.2	98.3	856	1573	5 minutes
Max. continuous	8920	98.6	99.2	860	1580	
Idle range			62.9-64.0			
Min. Idle in icing conditions			64.0			
Transient:						
Max. takeoff				900	1652	2 minutes
Normal takeoff				878	1612	2 minutes
Start/relight				930	1706	16 seconds

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					903	1657	50 seconds
	** See AFM as listed	l in Approved Public	cations for CF-34	1-3A and	CF-34-3A2 e	ngines ITT l	imits.
			NOTI	<b>∃</b> .			
	1. Above 40000 feet,	engine anti-ice blee			must be selec	cted ON for e	each engine.
	2. Engine Limits with above.	h APR Operating are	only applicable	to Outsic	de Air Tempe	ratures of -4°	°F (-20°C) and
Oil Temperature					<u>°C</u>	<u>°F</u>	
	Maximum Permissib	•		>-	+163	325	
	Maximum for Single Maximum Continuou	-	mnutes maximur	11):	+155 +150	311 302	
	Minimum for Startin				-40	-40	
O:1 P	Manimum Transiant	Cald Stant	100	<b>:</b>	(6 :	:	
Oil Pressure	Maximum Transient Maximum Continuou		100 95 j	•	(6 min. max	amum)	
	Minimum at Steady S		25				
	Minimum at Takeoff		40 j				
APU Limits	Maximum RPM		110%				
	Maximum EGT:		<u>°C</u>	<u>°F</u>			
	Starting (10 seconds)	)	974	1785			
	Running		731	1348			
Airspeed Limits (CAS)	$V_{mo}$ and $M_{mo}$ (max	imum operating)	<u>m.p.h.</u>	Knots	Mach		
	Sea level to 10000 ft		346	301	-		
	10000 ft. to 21330 ft		414	360	- 0.70		
	21330 ft. to 25640 ft 25640 ft. to 28720 ft		380	330	0.79		
	above 28720 ft.	•	-	-	0.835		
	V <sub>fe</sub> (Flaps extended)	20°	267	232	-		
		30°	228	198	-		
		45°	218	190	-		
	V <sub>a</sub> (maneuvering)						
	(See AFM for variati		de and aircraft w	eight).			
	V <sub>10</sub> (Landing Gear 0		226	197	-		
	V <sub>1e</sub> (Landing Gear I	Extended)	288	250	-		
C.G. Range			Forward Lin			Aft Lir	
(See NOTE 1)	Weight, 1		% MAC (Sta			<u>% MAC (</u>	<del></del>
	25000 to 42 43250	.230	16% (+502.84	+0)		30% (+51:	
	31000					35% (+520	
	25000 Straight line variation	n between points giv	 en.			35% (+520	0.450)
Datum	Fuselage station 0, lo	ocated 375 inches for	ward of weighin	ig datum	iig point		
	-		_				
Mean Aerodynamic Chord (MAC)	92.644 in. (Leading o	edge of MAC from d	atum at +488.02	25 in.)			
Leveling Means	Target plate and plur	nb bob bracket withi	n rear fuselage,	at fuselag	e station 718		
Maximum Weights		<u>lb. *</u>					
(See NOTE 1)		43250					
	Takeoff	43100					
	Landing	36000					
		29500 25000					
	141111111111111111111111111111111111111	25000					

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	*Certain aircraft are eligible for Variant for aircraft S/N 5135 ar		fferent weig	thts. See AF	M as in app	proved pub	lications. 601-3
Minimum Crew	Two (Pilot and Co-pilot)						
Maximum Occupants	Twenty-two (includes crew).						
<b>604 Variant</b> Engine Limits	CF34-3B	SL Static Thrust (lb.)	Compress		Interturbin	ne Temp.	
	Max. takeoff Normal takeoff Max. continuous Idle range Min. Idle in icing conditions	9220 8729 9140	LP <u>%N1</u> 98.6 96.2 98.6	HP <u>%N2</u> 99.4 98.3 99.2 62.9-64.0 64.0	<u>°C</u> 899 884 899	° <u>F</u> 1650 1623 1650	Time Limit 5 minutes 5 minutes
	Transient: Max. Takeoff Normal Takeoff Start/relight				928 906 930 903	1702 1663 1706 1657	2 minutes 2 minutes 16 seconds 50 seconds
	1. Above 40000 feet, engine an	nti-ice bleed or a	NOTE air condition		st be select	ed ON for	each engine.
	2. Engine Limits with APR Operabove.	erating are only	applicable t	to Outside A	ir Tempera	tures of -4°	°F (-20°C) and
Oil Temperature	Maximum Permissible (15 min Maximum for Single Engine Cl Maximum Continuous: Minimum for Starting:			):	°C +163 +155 +150 -40	° <u>F</u> 325 311 302 -40	
Oil Pressure	Maximum Transient Cold Start Maximum Continuous: Minimum at Steady State Idle: Minimum at Takeoff (power):	:	115 p 95 p 25 p 45 p	si si	0 min. max	imum)	
APU Limits							
	1						
	Maximum RPM Maximum EGT: Starting (10 seconds) Running		110% <u>°C</u> 974 731	<u>°F</u> 1785 1348			
Airspeed Limits (CAS)	Maximum EGT: Starting (10 seconds)	rating)	<u>°C</u> 974	1785 1348 h. Knots 300 348	Mach 0.78 - 0.85		
Airspeed Limits (CAS)	Maximum EGT: Starting (10 seconds) Running  V <sub>mo</sub> and M <sub>mo</sub> (maximum open Sea level to 8000 ft. 8000 ft. to 22160 ft. 22160 ft. to 26570 ft. 26570 ft. to 30997 ft.	20° 30° 45°	°C 974 731 m.p.l 345 400 - 366 -	1785 1348 h. Knots 3 300 3 348 - 3 318 - 4 231 7 197	0.78		
Airspeed Limits (CAS)	Maximum EGT: Starting (10 seconds) Running  V <sub>mo</sub> and M <sub>mo</sub> (maximum open Sea level to 8000 ft. 8000 ft. to 22160 ft. 22160 ft. to 26570 ft. 26570 ft. to 30997 ft. above 30997 ft.	20° 30° 45°	°C 974 731 m.p.l 345 400 - 366 - 266 227 217	1785 1348 h. Knots 3 300 3 348 5 318 - 231 7 197 189	0.78		

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C.G. Range	V <sub>1e</sub> (Landing gear extended)	ed)	F	288 orward Limit	250 -	Aft Lir	nit
(See NOTE 1)	Weight, lb.			MAC (Sta.)		<u>% MAC (</u>	<u>Sta.)</u>
	26000 to 3800			% (+506.553			
	39500 to 4475	00		% (+502.847			
	47700 47700 to 4300	00	20	% (+506.553 	)	38% (+523	3 228)
	38000 to 2600					35% (+520	· ·
	Straight line variation bety		given.			5570 (1520	,
	· ·	•					
Datum	Fuselage station 0, located				n jig point.		
Mean Aerodynamic Chord (MAC)	92.644 in. (Leading edge of	of MAC froi	m datum at +4	188.025 in.)			
Leveling Means	Target plate and plumb bo	b bracket w	ithin rear fuse	lage, at fusel	age station 718.		
Maximum Weights		<u>lb. *</u>					
(See NOTE 1)	Ramp	47700					
	Takeoff	47600					
	Landing	38000					
	Zero Fuel Minimum	32000 26000					
	*Certain aircraft are eligib		tion at differe	nt weights Se	ee AFM as in an	proved public	ations 601-3R
	Variant for aircraft S/N 51			iii weights. St	oo in wi us in up	proved public	acrons. 001 310
Minimum Crew	Two (Pilot and Co-pilot)						
Maximum Occupants	Twenty-two (includes crew	7).					
(01 21 T) 1							
601-3A Variant			II C Col	Imp. Col	$V_{\alpha}$	Waight 1h	Mom Arm in
Fuel Capacity	Usable		U.S. Gal.	Imp. Gal.	<u>Kg.</u>	weight, ib.	Mom. Arm-in.
	2 main tanks (each)		727	605	2227	4909	(+506.6)
	Fuselage tanks		1017	847	3115	6868	(+455.6)
	Total		2472	2059	7569	16686	, ,
	See NOTE 1(b) for system	fuel.					
601-3R Variant							
Fuel Capacity			U.S. Gal.	Imp. Gal.	Kg.	Weight Ih	Mom. Arm-in.
Tuel Supuelty	Usable		C.B. Gui.	mp. our.	<u> 115.</u>	vv ergin, re-	1/10111.7 1111 1111.
	2 main tanks (each)		727	605	2227	4909	(+506.6)
	Fuselage tanks		1010	841	3115	6868	(+455.6)
	Tail tank		187.7	156.24	579	1276	(+816.7)
	Total		2651.7	2207.24	8148	17962	
	See NOTE 1(b) for system	i fuel.					
604 Variant							
Fuel Capacity			U.S. Gal.	Imp. Gal.	<u>Kg.</u>	Weight, lb.	Mom. Arm-in.
	<u>Usable</u>						
	2 main tanks (each)		720	600	2205	4860	(+506.6)
	Auxiliary tank		1062	884	3251	7168	(+450.6)
	Tail tank		461	384	1411	3112	(+771.7)
	Total See NOTE 1(b) for system	fuel.	2963	2467	9072	20000	
Oil Consitu	601 2 A Variant*		II C C-1	Imm Cal	<b>V</b> -	Waish 11	Mom A :
Oil Capacity	601-3A Variant* 2-engines (each)		<u>U.S. Gal.</u> 1.70	<u>Imp. Gal.</u> 1.42	<u>Kg.</u> 5.94	13.09	Mom.Arm-in. (+653.0)
	Total		3.40	2.83	11.88	26.18	(+653.0)
	Usable		5.40	2.03	11.00	20.10	(1033.0)
	2-engines (each)		1.38	1.14	4.80	10.59	(+653.0)
	Total		2.75	2.29	9.60	21.18	(+653.0)

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See NOTE 1(c) for system oil.

<u>APU</u>					
Usable	.408	.340	1.43	3.144	(+646.0)
Total	.714	.594	2.49	5.5	(+646.0)
Unusable	.306	.254	1.06	2.356	(+646.0)

\*601-3R Variant & 604 Variant - same as 601-3A, except as listed in the AFM approved

publication.

Maximum Operating Takeoff and landing: 10000 ft.
Altitude En route: 41000 ft.

Attitude Eli Toute. 41000 ft.

Control Surface Movements Rudder  $25^{\circ} (+1^{\circ}, -0.5^{\circ})$  Left 25° (+1° or -0.5°) Right Elevator  $23.6^{\circ}$  (+ or -  $1.0^{\circ}$ ) Up 18.4° (+ or - 1.0°) Down -9° (+ or -  $0.3^{\circ}$ ) LE Down Horizontal Stabilizer  $0^{\circ}$  (+ or - 0.3°) LE Up Aileron  $20.8^{\circ}$  (+ or - 1°) Up 21.3° (+ or - 1°) Down  $0^{\circ}$  -  $45^{\circ}$  (+ or -  $1^{\circ}$ ) Down Flap Inboard Outboard  $0^{\circ}$  - 46.7° (+ or - 1°) Down

Flight Spoiler  $0^{\circ} - 40^{\circ} (+3^{\circ}, -0^{\circ})$  Up

Serial Numbers Eligible 5001 and subsequent

Service Information Service Bulletins, structural repair manuals, and aircraft flight manuals which contain a statement that the

document is Transport Canada approved or Transport Canada approved through the Manufacturers Design Approval Representative are accepted by the FAA and are considered FAA approved. These approvals

pertain to the type design only.

#### **Data Pertinent to all Models**

#### Approved Publications

#### Model CL-600-1A11 (600)

- (a) Airplane Flight Manual, Canadair Publication RAG-600-101, Issue 2 (PSP 600 (U.S.) FAA, and PSP 600-1 (U.S.) for the appropriate configuration, (See NOTE 1) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-600-105, and later approved revisions.

# Model CL-600-2A12 (601)

- (a) Airplane Flight Manual, Canadair Publication PSP 601-1A, PSP 601-1A-1, PSP 601-1B and PSP 601-1B-1 for the appropriate weight configuration, (See NOTE 1) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-601-105, and later approved revisions.

#### Model CL-600-2B16 (601-3A, 601-3R, & 604 Variants (from S/N 5301 to 5699))

- (a) Airplane Flight Manual, Canadair Publication PSP 601A-1, PSP 601A-1-1 and PSP 604-1 for the appropriate weight configuration, (See NOTE 1) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-601A-105 (3A & 3R Variants) and RAL-604-0001 (604 Variant), and later approved revisions.

#### Model CL-600-2B16 (604 Variant (from S/N 5701 to 5990))

- (a) Airplane Flight Manual, Canadair Publication PSP 605-1 for the appropriate weight configuration, (See NOTE 1&9) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-604-0001 (604 Variant), and later approved revisions.

#### Model CL-600-2B16 (604 Variant (from S/N 6050 & Subs))

- (a) Airplane Flight Manual, Canadair Publication PSP 650-1 for the appropriate weight configuration, (See NOTE 1&14) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-604-0001 (604 Variant), and later approved revisions.

#### Import Eligibility

A U.S. Airworthiness Certificate may be issued on the basis of the Canadian Department of Transport "Certificate of Airworthiness for Export" signed by the Minister of Transport. This form must contain the following statement:

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#### (a) Model CL-600-1A11 (600)

"This certificates that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131, as modified by Drawing List, Canadair Publication RAL-600-105, and later approved revisions (FAA Type Certificate No. A21EA)".

#### (b) Model CL-600-2A12 (601)

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131 as modified by Drawing List, Canadair Publication RAL-601-105, and later approved revisions (FAA Type Certificate No. A21EA)".

#### (c) Model CL-600-2B16 (601-3A & 3R Variants)

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131 as modified by Drawing List, Canadair Publication RAL-601A-105 and later approved revisions (FAA Type Certificate No. A21EA)".

#### Model CL-600-2B16 (604 Variant)

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131 as modified by Drawing List, Canadair Publication RAL-604-0001 and later approved revisions (FAA Type Certificate No. A21EA)".

#### Certification Basis

#### Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A & 3R Variants)

FAR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-37, plus FARs 25.675(a), 25.685(a), 25.733(c), 25.775(e), 25.787(c), 25.815, 25.841(b), 25.951(a), 25.979(d) and (e), 25.1041, 25.1143(e), 25.1303(a), 25.1322, 25.1385(c), 25.1557(b), 25.1583(a), of Amendment 25-38;

FARs 25.901(b) and (c), 25.903(c) and (e), 25.933(a), 25.943, 25.959, 25.1091(a) and (d), 25.1145(c), 25.1199(b) and (c), 25.1207, 25.1549, 25.1585(a)(9) of Amendment 25-40; and

FAR 25.1309 of Amendment 25-41;

FAR 25.1353(c) of Amendment 25-42;

FAR's 25.571 and 25.629(d)(4) (v) of Amendment 25-45;

FARs 25.351 and 25.603 of Amendment 25-46.

#### Model CL-600-2B16 (604 Variant)

FAR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-78 with the following exceptions:

FAR Part 25 at Amendments 25-1 through Amendment 25-37 for paragraphs: 109, 149, 365, 561, 625, 701, 772, 783 (except 783(f)), 785 (except 785(g)), 789, 791, 801, 803, 807, 809, 811, 812, 813, 831, 853, 855, 857, 1307, 1359, 1415, & 1419;

FAR Part 25 at Amendment 25-37 for existing installations and Amendment 25-78 for new installations for paragraphs: 963, 965, 994, 997, and 1438;

FAR Part 25 at Amendment 25-38 for paragraphs 787 and 1439;

FAR Part 25 at Amendment 25-40 for paragraph 25.973;

FAR Part 25 at Amendment 25-37 for paragraph 25.109 (see Note 7);

FAR Part 25 at Amendment 25-44 for paragraph 25.1413;

FAR Part 25 at Amendment 25-54 for paragraph 851;

FAR Part 25 at Amendment 25-80 for paragraph 1316.

New FAR Part 25 requirements 562, 810, 819, 832, 858, 869, (a) & (b), 1421, 1423 and 1450 are not part of the certification basis.

# Additional FAA Requirements

#### (a) Model CL-600-1A11 (600)

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendment 36-9 inclusive.
- (2) SFAR 27 dated February 1, 1974, as amended through Amendment SFAR 27-2.
- (3) Special Conditions:
  - No. 25-94-EA-12 dated March 26, 1980, (FAA Docket No. 16921) and Amendment No. 1 dated September 11, 1981.
  - No. 25-666-SC Non-Rechargeable Lithium Batteries, effective to design changes

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applied for after May 9, 2017. See the applicability section of this special condition for more information on which design change must meet it.

Date of application for Type Certificate August 3, 1976.

Type Certificate A21EA issued November 7, 1980.

#### (b) Model CL-600-2A12 (601)

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-9 inclusive.
- (2) SFAR 27 dated February 1, 1974, as amended through Amendment SFAR 27-2.
- (3) Special Conditions:
  - No. 25-ANM-1 dated March 8, 1983.
  - No. 25-666-SC, Non-Rechargeable Lithium Batteries, effective to design changes applied for after May 9, 2017. See the applicability section of this special condition for more information on which design change must meet it.

Date of application for amendment to Type Certificate May 1, 1981.

Type Certificate A21EA amended March 11, 1983.

#### (c) Model CL-600-2B16 (601-3A & 3R Variants)

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-9 inclusive.
- (2) SFAR 27 dated February 1, 1974, as amended through Amendment SFAR 27-2.
- (3) Special Conditions:
  - No. 25-ANM-1 dated March 8, 1983.
  - No. 25-666-SC, Non-Rechargeable Lithium Batteries, effective to design changes applied for after May 9, 2017. See the applicability section of this special condition for more information on which design change must meet it.

Date of application for amendment to Type Certificate March 3, 1986.

Type Certificate A21EA amended April 30, 1987.

#### (d) Model CL-600-2B16 (604 Variant)

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-20 inclusive.
- (2) FAR Part 34 dated August 25, 1990 as amended through Amendment 34-1.
- (3) Special Conditions:
  - No. 25-ANM-109 dated October 31, 1995 (HIRF).
  - No. 25-666-SC, Non-Rechargeable Lithium Batteries, effective to design changes applied for after May 9, 2017. See the applicability section of this special condition for more information on which design change must meet it.

Date of application for Change to Type Design June 14, 1993.

Change to Type Design approved November 2, 1995.

## Equivalent safety has been established for the following requirements:

#### (a) CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A & 3R Variants).

- (1) FAR 25.773(b)(2) DV Window
- (2) 25.955(a)(4) Blocked Flow Meter Fuel Flow Requirements
- (3) FAR 25.201 Stall Determination

#### (b) <u>CL-600-2B16 (604 Variant)</u>

- (1) FAR 25.955 (a)(4) Blocked Flow Meter Fuel Flow Requirements
- (2) Several FAR's for the use of Reduced Minimum Operating Speed Factors
- (3) FAR 25.125(a) Increased Flare Height, for Steep Approach Landing Ops. at London City

# (c) CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A, 3R, & 604 Variant)

- (1) Ditching provisions of 14 CFR 25.801
- (2) Ice Protection of 14 CFR 25.1419

The basic equipment as prescribed in the applicable airworthiness requirements (See Certification Basis) must be installed in the aircraft for certification.

#### Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A & 3R Variants)

Based on § 21.101(g) for changes to TCs, applicable provisions of Part 26 are included in the certification basis. For any future Part 26 amendments, the holder of this TC must demonstrate

Equipment

Part 26 – Continued Airworthiness and Safety Improvements for Transport Page 13 of 20 A21EA

#### Category Airplanes

compliance with the applicable sections.

#### Exemption 9947

This exemption grants relief to Bombardier Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A & 3R Variants) from having to meet the airworthiness requirements of §§ 26.11, 26.33, 26.35, 26.43, 26.45, and 26.49.

(See Note 10 for a list of related operational requirements and associated considerations)

#### Model CL-600-2B16 (604 Variant)

Based on § 21.101(g) for changes to TCs, applicable provisions of Part 26 are included in the certification basis. For any future Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

#### Exemption 9947

This exemption grants relief to Bombardier Model CL-600-2B16 (604 Variant) from having to meet the airworthiness requirements of §§ 26.11, 26.33, 26.35, 26.43, 26.45, and 26.49. (See Note 10 for a list of related operational requirements and associated considerations)

This Aircraft Type Certificate Data Sheet defines a configuration which does not include passenger provision for the CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A, 3R & 604 Variants) models. Carriage of persons in the cabin is permitted when an approved seating arrangement and related required passenger provisions are incorporated.

(a) Current weight and balance report including the list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification.

# (b) Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A, 3R & 604 Variants)

System fuel, which must be included in the empty weight, is the amount of fuel required to fill the system plumbing and tanks to the undrainable level plus unusable fuel in the fuel tanks. The total amount of "system fuel" for the following Challenger variants is:

 Model:
 Total Unusable (system fuel)

 CL-600-1A11 (600), 2A12 (601)
 16.0 gal. total, 109 lb., (arm +500.00)

 CL-600-2B16 (601-3A & 3R Variants)
 17.5 gal. total, 119 lb., (arm +524.80)

 CL-600-2B16 (604 Variant)
 19.0 gal. total, 129 lb., (arm +536.60)

# (c) Model CL-600-1A11 (600)

System oil, which must be included in the empty weight, is the amount of oil necessary for engine lubrication. The total amount of "system oil" is as follows:

7.38 U.S. gal. (total) 56.8 lb., (arm +623)

Model CL-600-2A12 (601) and CL-600-2B16 (601-3A, 3R and 604 Variant)

System oil, which must be included in the empty weight, is the amount of oil necessary for engine lubrication. The total amount of "system oil" is as follows:

6.1 U.S. gal. (total), 47 lb., (arm +680.5)

#### (d) Model CL-600-1A11 (600)

Aircraft which incorporate Canadair Limited Modification Summaries:

- 1) 600-556 Modified main landing gear wheel,
- 2) 600-592 Modified main landing gear sidestay,
- 3) 600-1933 Revised airspeed limitation placard.

May be operated to the following limitations (eligible Serial Numbers 1002, 1004 through 1037):

Maximum Weight	<u>lb.</u>
Ramp	38650
Takeoff	38500
Landing	32500
Zero Fuel	28500

<u>Maximum Occupants</u> Twenty-two (includes crew)

C.G. Range

NOTE 1

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	Forward Limit	Aft Limit
Weight, lb.	<u>% MAC (Sta.)</u>	% MAC (Sta.)
24000 to 38650	16 % (+502.848)	
38650		28% (+513.965)
25800		33% (+518.598)
24000		33% (+518.598)
Straight line variation bet	tween points given.	

#### Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 40000 ft.

41000 ft. with Canadair Limited Modification Summaries 600-1923 & 600-8330 incorporated.

#### (e) Model CL-600-1A11 (600)

Aircraft which incorporate Canadair Limited Modification Summaries:

- 1) 600-594 Landing gear for 40400 lb. takeoff weight aircraft,
- 2) 600-616 Wheels and brakes for the 40400 lb. takeoff weight aircraft,
- 3) 600-643 Structural reinforcement at wing B.L. O rib,
- 4) 600-752 Modified anti-skid unit,
- 5) 600-817 Stall protection system computer for the 40400 lb. takeoff weight aircraft,
- 6) 600-8150 Placard for the 40400 lb. takeoff weight aircraft,
- 600-760 Drop down passenger door-production improvement (required only on S/N 1024 & subsequent).

May be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent):

Maximum Weight	<u>lb.</u>
Ramp	40550
Takeoff	40400
Landing	36000
Zero fuel	28500

#### Maximum Occupants Twenty-two (includes crew)

#### C.G. Range (Aircraft without Canadair Modification Summary 600-8265 incorporated)

	Forward Limit	Aft Limit
Weight, lb.	<u>% MAC (Sta.)</u>	% MAC (Sta.)
24000 to 40550	16 % (+502.848)	-
40550	-	27% (+513.039)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	-	33% (+518.598)

Straight line variation between points given.

#### C.G. Range (Aircraft with Canadair Modification Summary 600-8265 incorporated)

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 40550	16 % (+502.848)	-
40550	-	27% (+513.039)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	33% (+520.450)

Straight line variation between points given.

# Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 40000 ft.

41000 ft. with Canadair Modification Summaries 600-1923

& 600-8330 incorporated

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#### (f) Model CL-600-1A11 (600)

# Airspeed Limits (CAS)

Aircraft which, in addition to the Canadair Modification Summaries essential for operation at a maximum takeoff weight of 40400 lb., also incorporate the following Canadair Modification Summary:

 600-665 Revised Vmo/Mmo outputs of ADC and limitations placard may be operated at the following limitations:

Vmo and Mmo (maximum operating)	<u>m.p.h.</u>	<b>Knots</b>	Mach.
Sea level to 10000 feet	345	300	-
Above 10000 feet	420	365	0.835

Extension of the flight spoilers at airspeeds above Mach = 0.79 is not permitted unless the following additional Canadair Modification Summaries are incorporated:

- 1) 600-512 Prevention of spoiler asymmetry
- 2) 600-809 Dormant failure protection of the flight spoiler detent
- 3) 600-8212 Hydraulic pipe routing to suit spoiler detent mechanism.

#### (g) Model CL-600-1A11 (600)

Aircraft Serial Numbers 1086 and subsequent and aircraft incorporated the following:

- 1) Either
  - a) Canadair Service Bulletin
     600-0378 Modification Stall Protection System Stall Strip Removal and Altitude Compensation
- or b) Supplementary Type Certificate SA99NE Wing Stall Strip Removed and
- 2) Canadair Service Bulletin

600-0379 - Modification - Tires and Airspeed Limitation Placards -41100 Pounds Takeoff Weight.

May be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent)

Maximum Weight	<u>lb.</u>
Ramp	41250
Takeoff	41100
Landing	36000
Zero fuel	28500

#### <u>Maximum Occupants</u> Twenty-two (includes crew).

# C.G. Range Aircraft 1004, 1009, 1053 to 1056, 1066 and subsequent and Aircraft incorporating Canadair Service Bulletin 600-0221 or 600-0486

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	-
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	35% (+520.450)

Straight line variation between points given.

#### C.G. Range (Other Aircraft)

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	-
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	-	33% (+518.598)

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Straight line variation between points given.

#### Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 41000 ft.

#### Airspeed Limits (CAS)

Vmo and Mmo (maximum operating)	<u>m.p.h.</u>	<b>Knots</b>	Mach.
Sea level to 10000 feet	345	300	-
Above 10000 feet	420	365	0.835

Extension of the flight spoilers at airspeeds above Mach = 0.80 is not permitted on Aircraft S/N 1005 to 1008, 1010 to 1052, 1057 to 1066 not incorporating Canadair Service Bulletin 600-0086 Modification - Spoilers - Ground Spoiler Activation and Flight Spoiler Detent Mechanism.

#### (h) Model CL-600-1A11 (600)

Aircraft incorporating the following Canadair Service Bulletins

- a) 600-0350 Modification Engine Speed Indicating- N1 Fan Speed Indicator
- 600-0379 Modification Tires and Airspeed Limitation Placards 41100 lb. Takeoff Weight.
- c) 600-0401 Modification Winglets Addition

With Aircraft Serial Numbers 1005 to 1008 and 1010 to 1051 incorporating the following additional Canadair Service Bulletins

either 600-0096 Modification - Nose Landing Gear Steering

or 600-0380 Modification - Nose Gear - Steer by Wire.

May be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent).

Maximum Weight	<u>lb.</u>
Ramp	41250
Takeoff	41100
Landing	36000
Zero Fuel	28500

<u>Maximum Occupants</u> Twenty-two (includes crew).

# C.G. Range Aircraft 1004, 1009, 1053 to 1056, 1066 and Subsequent and Aircraft

Incorporating Canadair Service Bulletin 600-0221 or 600-0486

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	-
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	35% (+520.450)

Straight line variation between points given.

# C.G. Range (Other Aircraft)

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	-
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	-	33% (+518.598)

Straight line variation between points given.

#### Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 41000 ft. Page **17** of **20** A21EA

# Airspeed Limits (CAS)

Vmo and Mmo (maximum operating)	<u>m.p.h.</u>	<b>Knots</b>	Mach
Sea level to 10000 feet	345	300	-
10000 ft. to 21420 ft.	420	365	-
21420 ft. to 25740 ft.	-	-	0.79
25740 ft. to 28640 ft.	385	335	-
above 28640 ft.	-	-	0.835
Vfe (Flaps extended)			
20°	265	230	
30°	226	196	
45°	215	187	

Extension of the flight spoilers at airspeeds above Mach = 0.79 is not permitted on Aircraft S/N 1005 to 1008, 1010 to 1052, 1057 to 1066 not incorporating Canadair Service Bulletin 600-0086 Modification - Spoilers - Ground Spoiler Activation and Flight Spoiler Detent Mechanism.

### (i) Model CL-600-1A11 (600)

Aircraft incorporating the following Canadair Service Bulletins

- a) 600-0350 Modification Engine Speed Indicating- N<sub>1</sub> Fan Speed Indicator
- b) 600-0446 Modification Placard-41250 lb. Take-off Weight (Aircraft with Winglets).
- c) 600-0401 Modification Winglets Addition

With Aircraft Serial Numbers 1005 to 1008 and 1010 to 1051 incorporating the following additional Canadair Service Bulletins

either 600-0096 Modification - Nose Landing Gear Steering

or 600-0380 Modification - Nose Gear - Steer by Wire.

May be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent).

Maximum Weight	<u>lb.</u>
Ramp	41400
Takeoff	41250
Landing	36000
Zero Fuel	28500

<u>Maximum Occupants</u> Twenty-two (includes crew).

# C.G. Range Aircraft 1004, 1009, 1053 to 1056, 1066 and Subsequent and Aircraft Incorporating Canadair Service Bulletin 600-0221

	Forward Limit	Aft Limit
Weight, lb.	<u>% MAC (Sta.)</u>	% MAC (Sta.)
24000 to 41400	16% (+502.848)	-
41400	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	35% (+520.450)

Straight line variation between points given.

# C.G. Range (Other Aircraft)

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41400	16% (+502.848)	-
41400	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	-	33% (+518.598)

Straight line variation between points given.

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#### Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 41000 ft.

#### Airspeed Limits (CAS)

Vmo and Mmo (maximum operating)	<u>m.p.h</u>	<b>Knots</b>	Mach
Sea level to 10000 feet	345	300	<u>=</u>
10000 ft. to 21420 ft.	420	365	-
21420 ft. to 25740 ft.	-	-	0.79
25740 ft. to 28640 ft.	385	335	-
above 28640 ft.	-	-	-0.835
Vfe (Flaps extended)			
20°	265	230	
30°	226	196	
45°	215	187	

Extension of the flight spoilers at airspeeds above Mach = 0.79 is not permitted on Aircraft S/N 1005 to 1008, 1010 to 1052, 1057 to 1066 not incorporating Canadair Service Bulletin 600-0086 Modification – Spoilers - Ground Spoiler Activation and Flight Spoiler Detent Mechanism.

#### (j) Model CL-600-2A12 (601)

Aircraft Serial Numbers 3018 and subsequent and aircraft incorporating the following Canadair Service Bulletin 601-0032 - Modification - Tires and Airspeed Limitation Placards 43100 lb. Takeoff Weight may be operated to the following limitations (eligible Serial Numbers 1003, 3001 and subsequent)

Maximum Weight	<u>lb.</u>
Ramp	43250
Takeoff	43100

<u>Maximum Occupants</u> Twenty-two (includes crew).

#### C.G. Range

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
25000 to 43250	16% (+502.848)	-
43250	-	30% (+515.818)
31000	-	35% (+520.450)
25000	-	35% (+520.450)
Straight line variation bet	ween points given.	

#### OTE 2 Model CL-600-1A11 (600)

All placards must be installed in accordance with Canadair Limited Drawings: 600-40402, 600-40452, 600-51000, 600-51002, 600-51004

## Model CL-600-2A12 (601)

All placards must be installed in accordance with Canadair Limited Drawings: 601-40402, 601-40452, 600-51000, 600-51002, 601-51004.

#### Model CL-600-2B16 (601-3A, 3R and 604 Variants)

All placards must be installed in accordance with Canadair Limited Drawings: 601-40402, 601-40452, 601A51000, 601A51002, 601A51004.(601-3A & 3R Variants) 601-40402, 601-40452 & 604-51000 (604 Variant)

#### Model CL-600-1A11 (600)

The airplane life limits and repetitive inspections for components and equipment are listed in Canadair Time Limits/Maintenance Checks, PSP 605. These limitations may not be changed without FAA Engineering approval. This document with Canadair Maintenance Manual, PSP 602 and Job Inspection Card Manual PSP 622, NDT-612 contain all information essential for proper maintenance.

### Model CL-600-2A12 (601)

NOTE 2

NOTE 3

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The airplane life limits and repetitive inspections for components and equipment are listed in Canadair Time Limits/Maintenance Checks, PSP 601-5. These limitations may not be changed without FAA Engineering approval. This document with Canadair Maintenance Manual, PSP 601-2 and Job Inspection Card Manual PSP 601-22, NDT-612 contain all information essential for proper maintenance.

#### Model CL-600-2B16 (601-3A, 3R and 604 Variants)

The airplane life limits and repetitive inspections for components and equipment are listed as follows:

- 1. 601 3A and 3R Variants: Canadair Time Limits/Maintenance Checks, PSP 601A-5;
- 604 Variant (s/n 5301 to 5699): Time Limits/Maintenance Checks, Identification No. CH 604 TLMC, Section 5-10;
- 604 Variant (s/n 5701 to 5990): Time Limits/Maintenance Checks, Identification No. CH 605 TLMC, Section 5-10.
- 604 Variant (s/n 6050 and subsequent): Time Limits/Maintenance Checks, Identification No. CH 650 TLMC, Section 5-10.

These limitations may not be changed without FAA Engineering approval. These documents and the associated Canadair Maintenance Manual:

- 601 3A and 3R Variants: Aircraft Maintenance Manual PSP 601-2 Identification No. CH 601MM;
- 604 Variant (s/n 5301 to 5699): Aircraft Maintenance Manual Identification No. CH 604 MM:
- 604 Variant (s/n 5701 to 5990): Aircraft Maintenance Manual Identification No. CH 605 MM·
- 604 Variant (s/n 6050 and subsequent): Aircraft Maintenance Manual Identification No. CH 650MM:

and/or Job Inspection Card Manuals PSP601A-22 (601-3A Variant) and/or PSP 601R-22 (601-3R Variant), PSP604-22 (604 Variant), NDT604-12 contain all information essential for proper maintenance.

NOTE 4 RESERVED

NOTE 5 RESERVED

NOTE 6 RESERVED

NOTE 7 <u>Model Cl-600-2B16 (604 Variant)</u>

The following additional requirements must be included with FAR 25.109 at Amendment 25-37:

- Airplane Flight Manual information, in the form of guidance material, must be provided for supplementary operating procedures and performance information for operating on wet and contaminated runways.
- 2. The accelerate-stop distance and landing distance must be determined using the braking performance which is obtained with the brake conditions that are expected in service.

NOTE 8 RESERVED

NOTE 9

NOTE 10

The Challenger 605 is a marketing designation for the Challenger CL-600-2B16 (604 Variant) with Modsums 604DX10000, 604DX20000 and 604DX30000 incorporated, beginning with aircraft s/n 5701 to s/n 5990. This designation is for marketing purposes only.

This exemption does not grant relief from the related operational requirements contained in §§ 121.1109, 121.1111, 121.1117, 125.509, 129.109, 129.111 or 129.117. Should a person choose to operate a Bombardier Model CL-600-1A11 (600), CL-600-2A12 (601), CL-600-2B16 (601-3A Variant), CL-600-2B16 (601-3R Variant) or CL-600-2B16 (604 Variant) airplane under part 121, 125, or part 129 beyond the operational compliance deadlines as stated in §§ 121.1109, 121.1111, 121.1117, 125.509, 129.109, 129.111 or 129.117, that person will be required to comply with those operational requirements.

NOTE 11 RESERVED

NOTE 12 RESERVED

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NOTE 13 RESERVED

NOTE 14 The Challenger 650 is a marketing designation for the Challenger CL-600-2B16 (604 Variant)

beginning with aircraft s/n 6050 and subsequent. This designation is for marketing purposes only.

NOTE 15 RESERVED

NOTE 16 RESERVED

NOTE 17 The following models were previously recorded on Revision No. 48 of this TCDS A21EA and have been administratively transferred to TCDS A21EA-1 Revision No. IR on November 26, 2019 pursuant to 14 CFR § 21.47:

- CL-600-2B19 (Regional Jet Series 100 & 440)
- CL-600-2C10 (Regional Jet Series 700, 701 & 702)
- CL-600-2C11 (Regional Jet Series 550)
- CL-600-2D15 (Regional Jet Series 705)
- CL-600-2D24 (Regional Jet Series 900)
- CL-600-2E25 (Regional Jet Series 1000)

Existing manufactured Regional Jet Series aircraft have identification data plates which still refer to this FAA Type Certificate A21EA since the approved type design was recorded on this FAA Type Certificate A21EA at the time of manufacture. Since both FAA Type Certificates A21EA and A21EA-1 cross-reference each other via a record on the first page of both FAA Type Certificate Data Sheets, these aircraft will not require Supplemental aircraft identification data plates to comply with 14CFR §§ 21.182, 45.11, & 45.13.

FAA Airworthiness Directives (ADs) and any associated Alternate Means of Compliance (AMOCs) that refer to this FAA Type Certificate A21EA and apply to any of the approved Regional Jet Series aircraft models listed above, continue to remain applicable following this administrative change.

Existing FAA Supplemental Type Certificates (STCs), Part Manufacturing Approvals (PMAs), Airworthiness Directives (ADs) or Alternate Means of Compliance (AMOCs) that refer to this FAA Type Certificate A21EA and list any of the approved Regional Jet Series aircraft models listed above, are not required to be revised following this administrative change. When revising FAA STCs or PMAs for any other reason in the future, the STCs or PMAs may directly refer to both Type Certificates.

...END...